TETRA TECH EM INC.

September 26, 2006

Mr. Roy Crossland
START Project Officer
U.S. Environmental Protection Agency, Region 7
901 North 5th Street
Kansas City, Kansas 66101

Subject: Removal Site Evaluation Report
United Zinc #1 Site, Iola, Kansas
U.S. EPA Region 7 START 3, Contract No. EP-S7-06-01, Task Order No. 0011.000
Task Monitor: Eddie McGlasson, EPA On-Scene Coordinator

Dear Mr. Crossland:

Tetra Tech EM Inc., is submitting the attached Removal Site Evaluation Report for the above-referenced site. If you have any questions or comments regarding this submittal, please contact the project manager at 913-908-4649.

Sincerely,

for

Rick Claytor, CHMM
START Project Manager

Ted Faile, PG, CHMM
START Program Manager

Enclosures

9004/06.0011.000

30290954

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REMOVAL SITE EVALUATION REPORT

UNITED ZINC #1 SITE – IOLA, KANSAS

Superfund Technical Assessment and Response Team (START) 3
Contract No. EP-S7-06-01, Task Order No. 0011.000

Prepared For:

U.S. Environmental Protection Agency
Region 7
901 North 5th Street
Kansas City, Kansas 66101

September 26, 2006

Prepared By:

Tetra Tech EM, Inc.
8030 Flint Street
Lenexa, Kansas 66214
(913) 894-2600

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TABLES

1.0 INTRODUCTION

Tetra Tech EM Inc., (Tetra Tech) was tasked by the U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division, under Superfund Technical Assessment and Response Team (START) 3 Contract Number EP-S7-06-01, Task Order Number 0011, to conduct a removal site evaluation (RSE) at the United Zinc (UZ) #1 site in Iola, Kansas. The primary objective of the RSE was to assess the extent of lead, zinc, arsenic, and cadmium contamination in surface soils as a result of historic zinc and lead smelting activities in the area. To accomplish the objective, Tetra Tech START conducted field screening of surface soils with a portable x-ray fluorescence (XRF) spectrometer at daycare facilities, schools, parks, and residential properties. Soil samples from approximately 10 percent of the screened locations were collected and submitted to the Region 7 EPA laboratory in Kansas City, Kansas, for laboratory confirmation analyses of lead, zinc, arsenic, and cadmium. The following sections discuss previous investigations at the site, procedures used during this investigation, and analytical data obtained during this RSE.

2.0 SITE DESCRIPTION AND PREVIOUS INVESTIGATIONS

The UZ #1 site is located in and around the city limits of Iola, Kansas. The site location is illustrated on Figure 1 in Appendix A. The area of concern is a mix of residential and commercial properties, along with schools, daycares, and historical smelting areas.

With the discovery of natural gas in the area, ample fuel became available to support numerous zinc and lead smelting operations in the region. From 1902 until 1912, the United Zinc and Chemical Company utilized the site for lead and zinc smelting and processing operations.

Under the Kansas Department of Health and Environment's (KDHE) State Water Plan (SWP) program, a Phase I Focused Former Smelter Assessment was completed at the UZ #1 site in December 2003. The assessment identified the site as a potential source of heavy metals contamination due to the historical activities at the site. In December 2004, a KDHE contractor conducted a Phase II assessment at the site and identified elevated concentrations of lead, cadmium, arsenic, and zinc on the former United Zinc and Chemical Company property. Concentrations of those metals were detected as high as 49,000 milligrams per kilogram (mg/kg) for lead, 380 mg/kg for cadmium, 1,800 mg/kg for arsenic, and 52,000 mg/kg for zinc. The assessment also identified the potential for elevated levels of lead on nearby residential, school, and daycare properties.

In June 2005, KDHE screened the right-of-ways of 50 residential properties around the UZ #1 site. Discrete surface soil samples were collected at each property and analyzed (using both field screening and laboratory methods) for lead, arsenic, cadmium, and zinc. The results of this investigation identified lead-contaminated soils (i.e., exceeding 400 mg/kg) at 36 percent of the properties. Relative concentrations of the other metals of concern typically mimicked the lead levels.

In September 2005, a Preliminary Removal Site Evaluation was conducted by a KDHE contractor at sensitive receptor areas identified during previous investigations. This involved the collection of discrete soil samples from the McKinley Elementary School and the Iola Preschool. Lead concentrations greater than 400 mg/kg were identified in soils on and adjacent to the McKinley Elementary School property; however, no elevated concentrations of metals were found in the samples collected from the Iola Preschool.

3.0 REMOVAL SITE EVALUATION ACTIVITIES

Tetra Tech START conducted sampling activities at the UZ #1 site during the six-week period between April 11 and May 19, 2006, to identify contaminated soils meeting removal criteria. The Tetra Tech START members involved in those activities included Rick Claytor, Andy Haner, and Anthony Brewer. Eddie McGlasson, the EPA Region 7 on-scene coordinator (OSC), was also present during most of the sampling activities. The fieldwork was conducted in accordance with a quality assurance project plan (QAPP) prepared by Tetra Tech START and approved by EPA Region 7. A summary of those activities and the resulting data follows.

3.1 XRF SCREENING

For the RSE, residential properties, schoolyards, parks, and daycare centers were selected for assessment. At each identified property, after receiving consent for access from the owner, Tetra Tech START divided the property into multiple cells for screening purposes. From each cell, a composite sample consisting of nine aliquots was collected from 0 to 2 inches below ground surface (bgs), placed in an aluminum pie pan, and homogenized. Three separate readings for lead were taken of each homogenized sample using a field portable XRF. These readings were recorded on a screening form prepared for each property. The average of these three readings was calculated and also recorded on the screening form (see Appendix B). The property owner was provided a sketch of the property with the lead concentrations identified in each cell.

During the RSE, 260 properties were screened. Those properties consisted of 234 residential properties, 15 daycare centers, five public schoolyards, two churches, and four commercial properties. Figure 2 in Appendix A identifies the highest XRF values recorded at each property. At ten residential properties, XRF screening identified lead concentrations in soil exceeding the removal action level of 800 mg/kg. At three of the four commercial properties, XRF screening identified lead concentrations in soil exceeding the removal action level of 1,000 mg/kg for commercial properties. For schools, daycare facilities, and residences where a child with an elevated blood-lead (EBL) level resides, a removal action level of 400 mg/kg was established. XRF readings at two school properties, eight daycare facilities, and one residence where a child with an EBL level lived were greater than 400 mg/kg in surface soils. In all, 24 properties were identified with lead concentrations that supported a time-critical removal action, based on XRF data.

3.2 SOIL SAMPLING FOR XRF CONFIRMATION

In accordance with the QAPP, approximately 10 percent of the screened samples were submitted for laboratory confirmation analyses of arsenic, zinc, cadmium, and lead. The 75 samples selected for submittal to the laboratory (EMA78Q00/3001-1 through 75, including one field duplicate) were placed into 8-ounce glass jars, labeled, and placed into coolers, pending delivery to the EPA Region 7 laboratory in Kansas City, Kansas. Sample collection field sheets and chain-of-custody (COC) records were submitted to the laboratory with the soil samples (see Appendix C).

3.3 SOIL SAMPLING FOR BIOAVAILABILITY STUDY

On June 6, 2006, Mr. Claytor and Mr. Haner returned to Iola to collect multi-aliquot surface soil samples from six properties that had been previously screened and identified as containing elevated lead concentrations. Samples were collected in one cell from each of the six properties (EPA Property IDs 7, 21, 48, 54, 138a, and 223; see Appendix A, Figure 2) in the same manner as previously described. Each soil sample was split, with one split sample submitted to the EPA Region 7 laboratory and the other sent to a laboratory at the University of Colorado in Boulder, Colorado, under contract to Tetra Tech. Both sets of split samples were analyzed to determine the bioavailability of lead in the samples.

4.0 DATA SUMMARY

The data package from the EPA Region 7 laboratory for analyses to confirm the XRF readings is included in Attachment 1. The bioavailability data from the EPA Region 7 laboratory is included in Attachment 2

and the bioavailability data from the University of Colorado laboratory, along with Tetra Tech START's data validation report, is included as Attachment 3. The following sections summarize those laboratory data obtained for the RSE.

4.1 SOIL SAMPLES FOR XRF CONFIRMATION

The EPA Region 7 laboratory in Kansas City, Kansas, analyzed 75 soil samples to determine total concentrations of lead, zinc, arsenic, and cadmium (see Attachment 1). These samples represented approximately 10 percent of the samples screened with the XRF. Table 1 lists the XRF readings and corresponding laboratory results for lead in those samples. XRF readings for lead in those samples ranged from 143 to 1,410 mg/kg, while the laboratory results ranged from 106 to 2,290 mg/kg. Table 1 also contains the laboratory sample numbers and EPA identification numbers of the properties where the samples were collected, along with the addresses, cell numbers, and sample collection dates.

XRF data are considered valid if a comparison between the XRF values and the corresponding laboratory results yields a regression coefficient (r^2) of at least 0.7. The regression coefficient for the data collected for this RSE was 0.738. Therefore, the remaining XRF readings are considered valid screening level data.

TABLE 1
SUMMARY OF XRF AND LABORATORY LEAD CONCENTRATIONS
UNITED ZINC #1 SITE – IOLA, KANSAS

Sample Number	EPA Property ID	Property Address	Cell Number	Date Collected	XRF Reading (mg/kg)	Lab Result (mg/kg)
1,2&2-FD	2	204 S. Kentucky	1 & 8	4/11/2006	273 - 411	585 (596 & 496)
4	3	300 S. Jefferson	7	4/12/2006	485	501
5	4	700 N. Jefferson	3	4/12/2006	251	263
6 & 7	5	600 East St.	8 & 2	4/12/2006	311 - 216	284 - 223
8 & 10	6	300 E. Jackson	3 & 16	4/13/2006	247 - 211	210 - 228
9	13	304 N. Buckeye	2	4/14/2006	653	961
11	7	Kansas Dr. & Hwy 54	1	4/13/2006	665	736
12	12	605 N. Walnut	2	4/13/2006	333	806
13	10	411 N. Cottonwood	1	4/14/2006	793	869
14	14	19 S. Ohio	3	4/14/2006	492	539
15	28	1282 2,000th	2	4/18/2006	178	135
16	42	423 S. Washington	3	4/19/2006	369	420
17	37	502 S. Jefferson	1	4/19/2006	307	434
18	48	508 South St.	1	4/19/2006	811	2,290
19	39	605 South St.	1	4/19/2006	343	440
20	35	429 S. Kentucky	4	4/20/2006	415	582
21	16	116 S. Ohio	4	4/20/2006	443	745
22	29	18 S. Tennessee	2	4/20/2006	354	571
23	30	20 S. Tennessee	1	4/20/2006	503	681
24	50	1101 N. Sycamore	1	4/21/2006	373	567

TABLE 1 (Continued)
SUMMARY OF XRF AND LABORATORY LEAD CONCENTRATIONS
UNITED ZINC #1 SITE – IOLA, KANSAS

Sample Number	EPA Property ID	Property Address	Cell Number	Date Collected	XRF Reading (mg/kg)	Lab Result (mg/kg)
25	56	205 S. 4th	1	4/21/2006	985	1,040
26	58	701 N. Walnut	1	4/24/2006	606	769
27	76	812 N. Walnut	3	4/25/2006	386	1,050
28	64	910 N. Walnut	1	4/25/2006	575	1,150
29	80	220 S. Kentucky	3	4/25/2006	316	490
30	81	502 Kennedy Dr	4	4/26/2006	180	246
31	67	210 N. 1st	1	4/26/2006	241	288
32	87	316 W. Jackson	1	4/26/2006	924	1,200
33	102	416 E. Jackson	2	4/27/2006	359	704
34	92	203 S. 2nd	1	4/27/2006	378	556
35	89	230 S. Tennessee	1	4/27/2006	295	417
36	137	417 E. Madison	1	5/1/2006	219	284
37	107	502-504 N. Cottonwood	1	5/2/2006	278	616
38	110	301-303 N. 2nd	1	5/2/2006	165	246
39	142	818-820 Kansas Dr.	2	5/2/2006	167	209
40	144	317 S. Buckeye	1	5/2/2006	356	578
41	144	317 S. Buckeye	3	5/2/2006	556	798 J
42	141	302-304 Eisenhower	1	5/3/2006	175	249
43	148	330-332 Eisenhower	1	5/3/2006	143	106
44	158	426 Eisenhower	1	5/3/2006	149	148
45	156	419-421 Eisenhower	2	5/3/2006	255	342
46	171	702 N. Kentucky	2	5/4/2006	237	282
47	183	402 S. Sycamore	1	5/8/2006	319	530
48	179	302 S. Buckeye	2	5/8/2006	281	411
49	190	510 N. 2nd	1	5/9/2006	238	336
50	185	515 S. Cottonwood	1	5/10/2006	295	397
51	201	514 N. Kentucky	1	5/10/2006	445	764
52	198	427 N. Ohio	1	5/10/2006	421	562
53	205	610 N. Ohio	1	5/11/2006	153	186
54	197	613 N. Ohio	1	5/11/2006	385	504
55	208	502 N. Tennessee	2	5/11/2006	150	258
56	216	309 S. Colborn	1	5/15/2006	359	496
57	218	402 S. Colborn	2	5/15/2006	366	494
58	220	524 S. Oak	1	5/15/2006	639	837
59	221	323 S. Oak	1	5/15/2006	424	614
60	234	5 E. Irwin	2	5/16/2006	647	872
61	229	216 S. 1st	3	5/16/2006	329	362
62	225	221 S. 1st	1	5/16/2006	475	551
63	223	221 E. Elm	1	5/16/2006	1,410	1,960
64	233	422 S. 2nd	1	5/16/2006	326	618
65	237	112 S. 3rd	2	5/16/2006	303	323
66	239	105 S. 3rd	1	5/17/2006	270	386
67	236	101 S. 3rd	2	5/17/2006	442	509
68	248	202 E. Jackson	3	5/17/2006	555	628
69	243	606 N. Buckeye	1	5/17/2006	317	460
70	244	610 N. Buckeye	3	5/17/2006	487	554
71	246	709 N. Buckeye	1	5/17/2006	415	633
72	246	709 N. Buckeye	3	5/17/2006	1,059	1,360
73	249	201 N. Sycamore	1	5/18/2006	472	585
74	255	307 N. Sycamore	1	5/18/2006	655	844

TABLE 1 (Continued)
SUMMARY OF XRF AND LABORATORY LEAD CONCENTRATIONS
UNITED ZINC #1 SITE – IOLA, KANSAS

Sample Number	EPA Property ID	Property Address	Cell Number	Date Collected	XRF Reading (mg/kg)	Lab Result (mg/kg)
75	257	705 N. Sycamore	1	5/18/2006	500	464

Notes:

EPA	U.S. Environmental Protection Agency
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
XRF	X-ray fluorescence

Based on the laboratory results, ten additional properties were identified where lead concentrations exceeded the aforementioned removal action levels of 400 or 800 mg/kg (where XRF readings were below 400 or 800 mg/kg). Those samples were collected from EPA Property IDs 102 and 183 (daycare facilities), along with 10, 12, 13, 64, 76, 220, 234, and 255 (residences). Consequently, 34 properties were identified where XRF and/or laboratory data indicated lead concentrations warranting a time-critical removal action. Of these 34 properties, 19 are private residences (one where a child with an EBL level resides), ten are daycare facilities, two are elementary schools, and three are commercial properties (see Figure 2 in Appendix A). Table 2 identifies the properties that met criteria for a time-critical removal action.

TABLE 2
SUMMARY OF PROPERTIES MEETING TIME-CRITICAL REMOVAL CRITERIA
UNITED ZINC #1 SITE – IOLA, KANSAS

Property ID	Classification	Lead Concentration (mg/kg)		Criteria Met for Time-Critical Removal Action
		XRF[a]	Laboratory	
2	School	411	585	School/daycare >400 mg/kg (XRF & laboratory)
3	School	485	501	School/daycare >400 mg/kg (XRF & laboratory)
7	Commercial	6,443	NS	Commercial >1,000 mg/kg (XRF)
10	Residential	793	869	Residence >800 mg/kg (laboratory)
12	Residential	333	806	Residence >800 mg/kg (laboratory)
13	Residential	653	961	Residence >800 mg/kg (laboratory)
21	Daycare	1,135	NS	School/daycare >400 mg/kg (XRF)
41	Residential	1,163	NS	Residence >800 mg/kg (XRF)
46	Daycare	708	NS	School/daycare >400 mg/kg (XRF)
48	Residential	1,293	NS	Residence >800 mg/kg (XRF)
49	Residential	816	NS	Residence >800 mg/kg (XRF), EBL residence >400 mg/kg
54	Residential	1,443	NS	Residence >800 mg/kg (XRF)
56	Residential	985	1,040	Residence >800 mg/kg (XRF & laboratory)
64	Residential	575	1,150	Residence >800 mg/kg (laboratory)
65	Residential	807	NS	Residence >800 mg/kg (XRF)
76	Residential	386	1,050	Residence >800 mg/kg (laboratory)
87	Daycare	924	1,200	School/daycare >400 mg/kg (XRF & laboratory)
92	Daycare	813[b]	556	School/daycare >400 mg/kg (XRF & laboratory)
93	Daycare	459	NS	School/daycare >400 mg/kg (XRF)
102	Daycare	359	704	School/daycare >400 mg/kg (laboratory)
103	Daycare	430	NS	School/daycare >400 mg/kg (XRF)
138a	Commercial	1,405	NS	Commercial >1,000 mg/kg (XRF)
138c	Commercial	4,000	NS	Commercial >1,000 mg/kg (XRF)
183	Daycare	337	530	School/daycare >400 mg/kg (laboratory)
213	Residential	979	NS	Residence >800 mg/kg (XRF)
220	Residential	639	837	Residence >800 mg/kg (laboratory)
223	Residential	1,410	1,960	Residence >800 mg/kg (XRF & laboratory)
232	Daycare	744	NS	School/daycare >400 mg/kg (XRF)
234	Residential	647	872	Residence >800 mg/kg (laboratory)
246	Residential	1,059	1360	Residence >800 mg/kg (XRF & laboratory)
251	Residential	930	NS	Residence >800 mg/kg (XRF)
254	Daycare	478	NS	School/daycare >400 mg/kg (XRF)
255	Residential	655	844	Residence >800 mg/kg (laboratory)
256	Residential	844	NS	Residence >800 mg/kg (XRF)

Notes:

EBL	Elevated blood-lead
ID	Identification
mg/kg	Milligrams per kilogram
NS	No corresponding sample collected for laboratory analysis
XRF	X-ray fluorescence

a	Highest reading obtained for the property
b	Re-screening result; initial XRF screening value was 378 mg/kg

4.2 SOIL SAMPLES FOR BIOAVAILABILITY STUDY

Six soil samples containing elevated lead concentrations were split and submitted to the EPA Region 7 laboratory and the University of Colorado (UC) laboratory in Boulder for comparative analysis of bioavailability of lead. These analyses were conducted to determine the percentage of lead in site soils that would theoretically become bioavailable over time (see Attachments 2 and 3). Table 3 summarizes the results of the analyses conducted by both laboratories, along with XRF readings for lead in surface soils where those samples were collected. The EPA laboratory identified bioavailability of lead ranging from 62.8 to 86.5 percent, while the CU laboratory results ranged from 67 to 86 percent. The good correlation between the results from both laboratories supports a conclusion that a significant portion of lead in the soil would be bioavailable.

TABLE 3
SUMMARY OF BIOAVAILABILITY SAMPLING RESULTS
UNITED ZINC #1 SITE – IOLA, KANSAS

Sample Number	EPA Property ID	EPA Result for % Relative Lead Bioavailability	UC Result for % Relative Lead Bioavailability	XRF Lead Value (mg/kg)
1	7	62.8	74	6,433
2	138a	70.6	72	1,405
3	21	77.2	85	1,135
4	54	79.8	79	1,557
5	48	86.5	86	1,293
6	223	70.3	67	1,410

Notes:
EPA U.S. Environmental Protection Agency
ID Identification
mg/kg Milligrams per kilogram
UC University of Colorado
XRF X-ray fluorescence

5.0 CONCLUSIONS

From April 11 to May 19, 2006, Tetra Tech conducted RSE activities at the UZ #1 site, located in Iola, Kansas. Field activities included surface soil sampling and XRF screening of 260 properties throughout Iola. At ten residential properties, XRF screening indicated lead concentrations in soil exceeding the removal action level of 800 mg/kg. XRF readings for lead at three commercial properties exceeded a removal action level of 1,000 mg/kg established for commercial properties. In addition, two school

properties, eight daycare facilities, and one residence where a child with an EBL level lived had soils with lead concentrations greater than 400 mg/kg—the removal action level established for these types of properties. Also, ten additional properties (two daycares and eight residences) were identified by laboratory analysis where lead concentrations exceeded the appropriate removal action level. Consequently, a total of 34 properties were identified where XRF and/or laboratory data indicated lead concentrations warranting a time-critical removal action.

5.1 REMOVAL CONSIDERATIONS

A time-critical EPA-funded removal action appears warranted at 19 private residences (one where a child with an EBL level resides), ten daycare facilities, two elementary schools, and three commercial properties, where lead concentrations in surface soils have been found that exceed site-specific removal action levels. Removal activities at these properties would likely involve excavation and off-site disposal of contaminated soils, along with backfilling and restoration of excavated areas. Removal considerations are summarized in Appendix D.

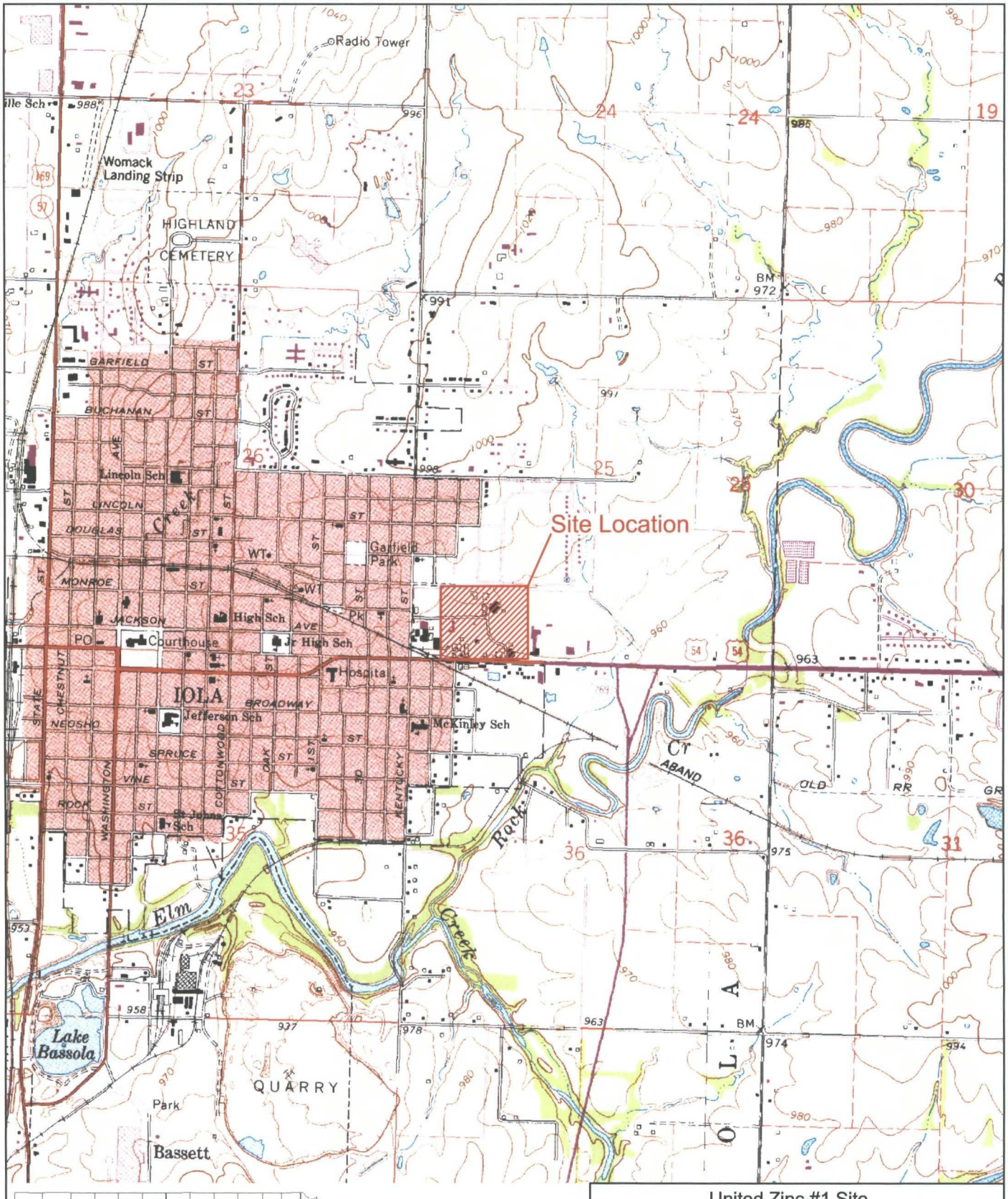
5.2 PRE-REMEDIAL CONSIDERATIONS

Pre-remedial issues at the UZ #1 site are currently being addressed by a combined Preliminary Assessment and Site Inspection (PA/SI) conducted by Tetra Tech START. Field data accumulated during this RSE will be incorporated into the PA/SI to determine whether further pre-remedial investigation is warranted.

APPENDIX A

FIGURES

(Two Pages)



United Zinc #1 Site
Iola, Kansas

Figure 1
Site Location Map

Tetra Tech EM Inc.

Date: 04/5/06 Drawn By: Bill Spiking Project No: I9004.L06.0011.000

Source: USGS Allen County, KS 7.5 Minute Topo Quad, 1959, PR 1984

G:\G\I9004\0011\000\dwg\figure1.dwg

Legend

School/Day Care XRF Results
- < 400 parts per million (ppm)
- >= 400 ppm

Residential and Commercial XRF Results
- < 400 ppm
- 400 - 799 ppm
- 800 - 1,199 ppm
- >= 1,200 ppm

Highway
Major Road
Local Road
Minor Road
Other Road
0144 EPA Property ID Number

Note: Property 0092 re-screened at >400 ppm; initial value <400 ppm.

County Locator Map

N

400 0 400

Feet

Source: Allen Co., Kansas DOQQ Tileset, 2005

United Zinc #1 Site
Iola, Kansas

Figure 2
XRF Screening Results Map

Tetra Tech EM Inc.

Date: 05/25/06 Drawn By: Colin Willits Project No: I9004.L.06.0011.000

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APPENDIX B

PROPERTY SCREENING FORMS

(265 Pages)

THE FOLLOWING PAGES HAVE BEEN REMOVED:

18 through 376

DUE TO CONFIDENTIAL BUSINESS INFORMATION (CBI)

APPENDIX C

SAMPLE COLLECTION FIELD SHEETS AND CHAIN-OF-CUSTODY RECORDS

(88 Pages)

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 1 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-1-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #2 Cell #1

External Sample Number: _____

Expected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/11/06 15:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify<4 Deg C~~	180 Days	1 Metals in ~~Water~~ Solid by ~~ICP~~ ICP

Sample Comments:

(N/A)

273

SR Number: 3001 Sample Number: 3 QC Code: __ Matrix: ~~Water~~ Soil Tag ID: 3001-3-__ 2

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA #2 Cell 8

External Sample Number: _____

xpected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/6/06 15:50

Longitude: ___ ___ ___ **End:** __/__/__ __:__

aboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify, 4~~ Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

ample Comments:

I/A)

411

ample Collected By: RC

Solid

SR Number: 3001 **Sample Number:** 2 **QC Code:** __ **Matrix:** ~~Water~~ **Tag ID:** 3001-2-__FD

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA #2 Cell 8

External Sample Number: _____

xpected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/11/06 15:50
Longitude: ___ ___ ___ **End:** __/__/__ __:__

aboratory Analyses:

Container	Preservative	Holding Time	Analysis
~~1 Liter Cubitainer~~ 8 oz Glass	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solids by ICP

ample Comments:

N/A)

Duplicate Sample

ample Collected By: RC

SR Number: 3001 **Sample Number:** 4 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-4-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA #3 Cell 7

External Sample Number: _____

xpected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/06 09:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

aboratory Analyses:

Container	Preservative	Holding Time	Analysis
~~1 Liter Cubitainer~~ 500 mL	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solids by ICP

ample Comments:

I/A)

300 S. Jefferson

485

ample Collected By: ~~BC~~ AFF

SR Number: 3001 **Sample Number:** 5 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-5-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA #4 Cell 3

External Sample Number: _____

xpected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/12/06	13:30
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

aboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

ample Comments:

N/A)

700 N Jefferson

250

ample Collected By: BC AH

Solid

SR Number: 3001 **Sample Number:** 6 **QC Code:** __ **Matrix:** ~~Water~~ **Tag ID:** 3001-6-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA #5 Cell 8

External Sample Number: _____

xpected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/12/06	15:30
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

.aboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 Liter ~~Cubitainer~~ 5 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

ample Comments:

N/A)

600 East 5ft

31(

ample Collected By: ~~BE~~ AH

Solid

SR Number: 3001 **Sample Number:** 7 **QC Code:** __ **Matrix:** ~~Water~~ **Tag ID:** 3001-7-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA # 5 Cell 2

External Sample Number: _____

xpected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/12/06 15:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

.aboratory Analyses:

Container	Preservative	Holding Time	Analysis
- ~~1 Liter Cubitainer~~ Soil	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

ample Comments:

N/A)

600 East 5th

216

ample Collected By: ~~RC~~ AH

Soil

SR Number: 3001 **Sample Number:** 8 **QC Code:** __ **Matrix:** ~~Water~~ **Tag ID:** 3001-8-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA #6 Cell 3

External Sample Number: _____

xpected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/06 09:30
Longitude: ___ ___ ___ **End:** __/__/__ __:__

aboratory Analyses:

Container	Preservative	Holding Time	Analysis
- 1 ~~Liter Cubitainer~~ 5 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ by ICP

ample Comments:

N/A)

300 E. Jackson.

247

ample Collected By: RC

Solid

SR Number: 3001 **Sample Number:** 9 **QC Code:** __ **Matrix:** ~~Water~~ **Tag ID:** 3001-9-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EMA #13 Cell 2

External Sample Number: _____

xpected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/06 09:55
Longitude: ___ ___ ___ **End:** __/__/__ __:__

.aboratory Analyses:

Container	Preservative	Holding Time	Analysis
- ~~1 Liter Cubitainer~~ 500	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

ample Comments:
N/A)

304 N. Buckeye

653

ample Collected By: RC

Solid

SR Number: 3001 **Sample Number:** 10 **QC Code:** __ **Matrix:** ~~Water~~ **Tag ID:** 3001-10-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA #6 Cell 6

External Sample Number: _____

xpected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/06 11:30
Longitude: ___ ___ ___ **End:** __/__/__ __:__

.aboratory Analyses:

Container	Preservative	Holding Time	Analysis
- 1 ~~Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

ample Comments:

J/A)

300 E. Jackson.

2 C

ample Collected By: RC

Solid

SR Number: 3001 **Sample Number:** 11 **QC Code:** __ **Matrix:** ~~Water~~ **Tag ID:** 3001-11-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA #7 Cell 1

External Sample Number: _____

xpected Conc: (or Circle One: Low (Medium) High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/06 14:20
Longitude: ___ ___ ___ **End:** __/__/__ __:__

.aboratory Analyses:

Container	Preservative	Holding Time	Analysis
~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

ample Comments:

N/A)

Kansas Dr & Hwy 54

665

ample Collected By: RC

SR Number: 3001 **Sample Number:** 12 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-12-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EA # 12 Cell 2

External Sample Number: _____

xpected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/13/06 16:32
Longitude: ___ ___ ___ **End:** __/__/__ __:__

.aboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

ample Comments:

J/A)

605 N. Walnut

333

ample Collected By: ~~RC~~ AH

Solid

SR Number: 3001 **Sample Number:** 13 **QC Code:** __ **Matrix:** ~~Water~~ **Tag ID:** 3001-13-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA #10 Cell 1

External Sample Number: _____

xpected Conc: (or Circle One: Low Medium ~~High~~) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/19/06 08:50
Longitude: ___ ___ ___ **End:** __/__/__ __:__

aboratory Analyses:

Container	Preservative	Holding Time	Analysis
~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals In ~~Water~~ Solid by ICP

ample Comments:

I/A) 411 N Cottonwood

793

ample Collected By: ~~RC~~ AH

Kansas City, KS

SR Number: 3001 **Sample Number:** 14 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-14-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
roject Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

ocation Desc: EPA # 14 Cell 3

External Sample Number: _____

xpected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/14/06	13:30
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

aboratory Analyses:

Container	Preservative	Holding Time	Analysis
~~1 Liter Cubitainer~~ 500 cc	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

ample Comments:

N/A) 195 Ohio

497

ample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 15 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-15-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #28 Cell 2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/18/06 12:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 16 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-16-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #42 Cell 3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/19/06 08:45
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 17 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-17-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #37 Cell 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/19/06 11:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 18 **QC Code:** __ **Matrix:** Water **Tag ID:** 3001-18-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA # 48 Cell I

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/19/06 13:35
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180 Days	1 Metals in Water by ICP

Sample Comments:

(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 19 **QC Code:** __ **Matrix:** Water **Tag ID:** 3001-19-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA#39 Cell I

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/19/06 15:20
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180 Days	1 Metals in Water by ICP

Sample Comments:
(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 20 **QC Code:** __ **Matrix:** Water **Tag ID:** 3001-20-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA # 35 Cell 4

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/20/06 08:25
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180 Days	1 Metals in Water by ICP

Sample Comments:
(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 21 **QC Code:** __ **Matrix:** Water **Tag ID:** 3001-21-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #16 Cell 4

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/20/06 10:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180 Days	1 Metals in Water by ICP

Sample Comments:
(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 22 **QC Code:** __ **Matrix:** Water **Tag ID:** 3001-22-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #29 Cell 2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/20/06 14:30
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180 Days	1 Metals in Water by ICP

Sample Comments:

(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 23 **QC Code:** __ **Matrix:** Water **Tag ID:** 3001-23-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #30 Cell I

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/20/06	15:15
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180 Days	1 Metals in Water by ICP

Sample Comments:

(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 24 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-24-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA#50 Cell 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/21/06 08:30
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8-oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 25 **QC Code:** __ **Matrix:** ~~Water~~ SOIL **Tag ID:** 3001-25-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA # 56 C I

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/21/06 11:30
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ SOIL by ICP

Sample Comments:
(N/A)

Sample Collected By: RC

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 26 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-26-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA58 Grid 1

External Sample Number: _____

		Date	Time(24 hr)
Expected Conc:	(or Circle One: Low Medium High)		
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/24/06	15:15
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8 oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 ~~Metals~~ Solid in Water by ICP

Sample Comments:

(N/A)

606

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 27 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-27-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 76 Cell 3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/25/06 08:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

386

Sample Collected By: ~~BC~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 28 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-28-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 64 Cell 1

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)		**Date**	**Time(24 hr)**
Latitude: ___ ___ ___		**Sample Collection: Start:**	4/25/06	10:05
Longitude: ___ ___ ___		**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soils by ICP

Sample Comments:
(N/A)

575

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 29 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-29-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 80 Cell 3

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/15/04	17:00
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 ~~Metals in Water~~ Lead in Soil by ICP

Sample Comments:

(N/A)

3(6

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 30 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-30-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 81 Cell 4

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/26/06	__:__
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

180

Sample Collected By: ~~RE~~ AB

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 31 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-31-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 67 Cell 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/26/06 11:18
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

210 N 1st

241

Sample Collected By: ~~BE~~ AB

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 32 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-32-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 87 Cell 1

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/26/06	16:21
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

3160 Jackson

92nd

Sample Collected By: ~~RC~~ AB

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 33 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-33-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 102 Cell 2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 4/27/06 08:53
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

416 E. Jackson.

359

Sample Collected By: ~~RC~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 34 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-34-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 92 Cell 1

External Sample Number: _____

Expected Conc:	(or Circle One: (Low) Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/17/06	13:30
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:
(N/A)

2035.2 1d

378

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 35 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-35-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 89 Cell (

External Sample Number: _____

Expected Conc:	(or Circle One: (Low) Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	4/27/06	15:45
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

130 S. Tennessee

195

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 36 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-36-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 137 Cell #1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/1/06 17:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

417 E. Madison

219

Sample Collected By: ~~RC~~ AH RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 37 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-37-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 107 Cell

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/2/06 08:45
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

502-504 N. Cottonwood

278

Sample Collected By: ~~RC~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 38 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-38-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 110 Cell #1

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)		**Date**	**Time(24 hr)**
Latitude: ___ ___ ___		**Sample Collection: Start:**	5/2/06	10:10
Longitude: ___ ___ ___		**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:

(N/A)

301-303 N. 2nd

165

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 39 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-39-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 141 Cell #2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/2/06 13:59
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

819-820 Evaluated DOL

162

Sample Collected By: ~~RC~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 40 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-40-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 144 Cell #1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/2/06 14:50
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

317 S. Buckeye

356

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 41 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-41-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 144 Cell 3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/2/06 15:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

317 S. Buckeye

556

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 42 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-42-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 141 Cell 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/3/06 09:05
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

302-304 Eisenhower DR.

175

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 43 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-43-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 148 Cell #1

External Sample Number: _____

		Date	Time(24 hr)
Expected Conc:	(or Circle One: Low Medium High)		
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/3/06	10:31
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

330-332 Eisenhower DR.

143

Sample Collected By: ~~DE~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 44 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-44-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 158 Cell #1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/3/06 14:18
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter~~ Cubitainer 8oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

426 Eisenhower Dr

149

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 45 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-45-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 156 Cell #2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/3/06 14:33
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~, HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A) 419-421 Eisenhower Dr

255

Sample Collected By: ~~RC~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 46 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-46-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA171 Cell #2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/4/06 15:48
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

702 N. Kentucky

237

Sample Collected By: ~~RE~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 47 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-47-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 183 Cell #1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/8/06 13:10
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

402 S. Sycamore

319

Sample Collected By: ~~RC~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 48 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-48-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 179 Cell #2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/8/06 14:47
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8 oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

302 S. Buckeye

281

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 49 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-49-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 190 Cell #1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/9/06 13:55
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

510 N. 2nd

238

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 50 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-50-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 185 Cell 01

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/10/06 09:03
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

515 S. Cottonwood

295

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 51 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-51-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 20c Cell #1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/10/06 13:06
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

514 N. Keatucky

495

Sample Collected By: RC

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 52 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-52-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 198 Cell # 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/10/06	15:50
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8 oz	~~HNO3 acidity~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:

(N/A)

427 N. Ohio

421

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 53 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-53-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 205 Cell #1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/10/06 08:47
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

610 N. Ohio

153

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 54 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-54-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 197 Cell #1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/11/06 09:10
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:
(N/A)

613 N. Ohio

385

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 55 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-55-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 208 Cell #2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/11/06 14:05
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:

(N/A)

502 N. Tennessee

150

Sample Collected By: ~~RC~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 56 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-56-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 21e C1

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/15/06	11:55
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:
(N/A)

309 S Calhoun

359

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 57 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-57-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 218 C2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/15/06 13:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

402 S Colborn

366

Sample Collected By: ~~RC~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 58 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-58-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 220 C1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/15/06 13:35
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:

(N/A)

524 S. OAK

639

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 59 **QC Code:** __ **Matrix:** ~~Water~~ Sed **Tag ID:** 3001-59-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 221 C1

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/15/06	16:00
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Sed by ICP

Sample Comments:

(N/A)

323 S OAK.

424

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

Soil

ASR Number: 3001 **Sample Number:** 60 **QC Code:** __ **Matrix:** ~~Water~~ **Tag ID:** 3001-60-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 234 C2

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/16/06	08:30
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:

(N/A)

5 E Irwin

647

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 61 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-61-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 329 C3

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/16/06	10:25
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

216 S. 1ST ST.

329

Sample Collected By: ~~RC~~ Aff

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 62 **QC Code:** __ **Matrix:** ~~Water~~ SOIL **Tag ID:** 3001-62-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 225 C1

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/16/06	11:05
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ SOIL by ICP

Sample Comments:

(N/A)

221 S 1ST ST.

475

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 63 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-63-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 223 C1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/06 13:05
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:

(N/A)

221 S Elm ST.

1410

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 64 **QC Code:** __ **Matrix:** ~~Water~~ SO **Tag ID:** 3001-64-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 223 C1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/06 14:55
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter~~ Cubitainer 8 oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ SO by ICP

Sample Comments:
(N/A)

422 S. 2nd ST

326

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 65 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-65-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 237 C2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/16/06 16:55
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify,~~ 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:

(N/A)

112 S 3rd ST.

303

Sample Collected By: ~~RC~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 66 **QC Code:** __ **Matrix:** ~~Water~~ Sold **Tag ID:** 3001-66-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 239 C1

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/17/06	08:45
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3~~ acidify, 4 Deg C	180 Days	1 Metals in ~~Water~~ Sold by ICP

Sample Comments:

(N/A)

105 S 3rd ST.

270

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 67 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-67-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 236 C2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/17/06 09:31
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

101 S. 3rd ST.

442

Sample Collected By: RC AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 68 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-68-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 748 C3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/17/06 10:30
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acid~~ify, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A) 202 E. JACKSON

555

AH

Sample Collected By: ~~RC~~

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 69 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-69-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 243 C1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/17/06 12:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:

(N/A)

606 N. Buckeye

317

Sample Collected By: [illegible]

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 70 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-70-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 244 C3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/17/06 12:40
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:
(N/A)

610 N Buckeye

487

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 71 **QC Code:** __ **Matrix:** ~~Water~~ S.G.D **Tag ID:** 3001-71-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EMA 246 C1

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	**Date**	**Time(24 hr)**
Latitude: ___ ___ ___	**Sample Collection: Start:**	5/17/06	1305
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 ~~Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ S.G.D by ICP

Sample Comments:

(N/A)

709 N. BUCKEYE

508

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 72 **QC Code:** __ **Matrix:** ~~Water~~ S.C.d **Tag ID:** 3001-72-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 246 C3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/17/06 13:10
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 502	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ S.C.d by ICP

Sample Comments:

(N/A)

709 N. BUCKEYE

1059

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 73 **QC Code:** __ **Matrix:** ~~Water~~ Soil **Tag ID:** 3001-73-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 249 C1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/18/06 08 25
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8 oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Soil by ICP

Sample Comments:

(N/A)

201 N SYCAMORE

472

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 74 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-74-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 255 C1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/18/06 10:15
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 8oz	~~HNO3 acidify~~, 4 Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

307 N Sycamore

655

Sample Collected By: RC

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3001 **Sample Number:** 75 **QC Code:** __ **Matrix:** ~~Water~~ Solid **Tag ID:** 3001-75-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA 257 ~~255~~ RC Cell (

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 5/18/06 12:55
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - ~~1 Liter Cubitainer~~ 500	~~HNO3 acidify, 4~~ Deg C	180 Days	1 Metals in ~~Water~~ Solid by ICP

Sample Comments:

(N/A)

705 N. Sycamore

500

Sample Collected By: ~~RC~~ AB

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION-VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Eddie McGlasson	United Inc #1	11-14 / 04 / 06	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE (8 oz)	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
EMA78000-3001-1		1					X				
-2		1					X				
-2FD		1					X				
-4		1					X				
-5		1					X				
-6		1					X				
-7		1					X				
-8		1					X				
-9		1					X				
-10		1					X				
-11		1					X				
-12		1					X				
-13		1					X				
-14		1					X				

DESCRIPTION OF SHIPMENT

_____ PIECE(S) CONSISTING OF 1 BOX(ES)

_____ ICE CHEST(S): OTHER _____

MODE OF SHIPMENT

_____ COMMERCIAL CARRIER: _____

_____ COURIER

X SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Rick Clayton ☐ SEALED ☒ UNSEALED	4/7/06	1440	R. Wiggins ☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Eddie McGlasson	United Zinc #1	18 19 20 21 04 06	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE (802)	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
EMA28Q00 3001-15		1					X				
-16		1					X				
-17		1					X				
18		1					X				
19		1					X				
20		1					X				
21		1					X				
22		1					X				
23		1					X				
24		1					X				
25		1					X				

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

1 ICE CHEST(S): OTHER ____

MODE OF SHIPMENT

____ COMMERCIAL CARRIER: ____

____ COURIER

____ SAMPLER CONVEYED ____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
SEALED / UNSEALED X	4/24/06	0935	SEALED / UNSEALED	D.C. to LeG
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
SEALED / UNSEALED			SEALED / UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
SEALED / UNSEALED			SEALED / UNSEALED	

7-EPA-9262(Revised 5/85)

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Eddie McGlasson	United Zinc #1	24-27 04 06	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	8 oz BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
EMA78Q00 300i-26		1					X				
27		1					X				
28		1					X				
29		1					X				
30		1					X				
31		1					X				
32		1					X				
33		1					X				
34		1					X				
35		1					X				

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

1 ICE CHEST(S): OTHER ____

MODE OF SHIPMENT

____ COMMERCIAL CARRIER: ____

____ COURIER

____ SAMPLER CONVEYED

____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
☐ SEALED ☐ UNSEALED			☐ SEALED ☐ UNSEALED	

7-EPA-9262(Revised 5/85)

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Eddie McGlasson	United Zinc #1	1-3-4 05 06	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	8 oz BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
EMA78Q00 3001 - 36		1					X				
37		1					X				
38		1					X				
39		1					X				
40		1					X				
41		1					X				
42		1					X				
43		1					X				
44		1					X				
45		1					X				
46		1					X				

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF ____ BOX(ES)

1 ICE CHEST(S); OTHER ____

MODE OF SHIPMENT

____ COMMERCIAL CARRIER: ____

____ COURIER

X SAMPLER CONVEYED

____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Robert L Taylor ☐ SEALED ☒ UNSEALED	5-5-06	1459	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

7-EPA-9262(Revised 5/85)

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Eddie McGlasson	United Zinc #1	8 9 10 / 05 / 06	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE (8oz)	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
EA47800 3001 - 47		1					X				
48		1					X				
49		1					X				
50		1					X				
51		1					X				
52		1					X				
53		1					X				
54		1					X				
55		1					X				

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF 1 BOX(ES)

____ ICE CHEST(S); OTHER ____

MODE OF SHIPMENT

____ COMMERCIAL CARRIER: ____

____ COURIER

X SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Robert Clayton ☐ SEALED ☒ UNSEALED	5/12/06	1148	☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

7-EPA-9262(Revised 5/85)

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Eddy McGlasson	United Zinc #1	5 / 18 / 05 06	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE (8oz)	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
EMA78Q003001 - 56		1					X				
57		1					X				
58		1					X				
59		1					X				
60		1					X				
61		1					X				
62		1					X				
63		1					X				
64		1					X				
65		1					X				
66		1					X				
67		1					X				
68		1					X				
69		1					X				
70		1					X				
71		1					X				
72		1					X				
73		1					X				
74		1					X				
75		1					X				
			Nothing More to Follow								

DESCRIPTION OF SHIPMENT

____ PIECE(S) CONSISTING OF 1 BOX(ES)

____ ICE CHEST(S): OTHER ____

MODE OF SHIPMENT

____ COMMERCIAL CARRIER: ____

____ COURIER

X SAMPLER CONVEYED

____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Rick Clayton — ☐ SEALED ☒ UNSEALED	5/18/06	17:25	☐ SEALED ☐ UNSEALED	Del. to Lab.
RELINQUISHED BY — ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY — ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY — ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY — ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

*U.S. GPO: 2002-756-917/40053

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3057 **Sample Number:** 1 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3057-1-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #7 Cell 3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/6/06 11:10
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP

Sample Comments:
(N/A) Kansas DR & Hwy 54

Sample Collected By: ~~EM/AR~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3057 **Sample Number:** 2 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3057-2-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA # 138a Cell 3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/6/06 11:29

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP

Sample Comments:
(N/A) 1508 E. Monroe

Sample Collected By: ~~EM/RR~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3057 **Sample Number:** 3 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3057-3-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #21 Cell 2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/6/06 11:50
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP

Sample Comments:
(N/A)

206 S. 4th

Sample Collected By: ~~EM/AR~~ AH

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 3057 **Sample Number:** 4 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3057-4-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #54 Cell 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/6/06 12:20
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP

Sample Comments:
(N/A) 403 South St.

Sample Collected By: ~~EM/AR~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3057 **Sample Number:** 5 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3057-5-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #48 Cell 2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/6/06 12:35
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP

Sample Comments:
(N/A) 508 South St.

Sample Collected By: ~~EM/AR~~ AH

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3057 **Sample Number:** 6 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3057-6-__

Project ID: EMA78Q00 **Project Manager:** Eddie McGlasson
Project Desc: United Zinc No. 1 site sampling
City: Iola **State:** Kansas
Program: Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00

Location Desc: EPA #223 Cell 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium (High)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/6/06 12:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP

Sample Comments:
(N/A)

221 S. Elm

Sample Collected By: ~~EM/AR~~ AH

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Eddie McGlasson	United Zinc 91	6 / 6 / 06	1 of

CONTENTS OF SHIPMENT

SAMPLE NUMBER	8 oz CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
EM778Q00-1 3057	1						X				
2	1						X				
3	1						X				
4	1						X				
5	1						X				
6	1						X				

TYPE OF CONTAINERS — NUMBERS OF CONTAINERS PER SAMPLE NUMBER; SAMPLED MEDIA

Nothing More to Follow

'ESCRIPTION OF SHIPMENT

_____ PIECE(S) CONSISTING OF _____ BOX(ES)

1 ICE CHEST(S); OTHER _____

MODE OF SHIPMENT

_____ COMMERCIAL CARRIER: _____

_____ COURIER

X SAMPLER CONVEYED

(SHIPPING DOCUMENT NUMBER)

'RSONNEL CUSTODY RECORD

INQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] ALED UNSEALED ☒	6/6/06	1503	☐ SEALED UNSEALED ☐	Del. to Lab for Analysis
IQUISHED BY — LED UNSEALED ☐	DATE	TIME	RECEIVED BY — ☐ SEALED UNSEALED ☐	REASON FOR CHANGE OF CUSTODY
QUISHED BY — ED UNSEALED ☐	DATE	TIME	RECEIVED BY — ☐ SEALED UNSEAL...	REASON FOR CHANGE OF CUSTODY

APPENDIX D

REMOVAL SITE EVALUATION FORM

(Six Pages)

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

I. SITE NAME AND LOCATION:

NAME: United Zinc #1 Site		
ADDRESS OR OTHER LOCATION IDENTIFIER: Eastern portion of Iola, Kansas		
CITY: Iola	**STATE:** Kansas	**ZIP:** 66749
DIRECTIONS TO SITE: From Kansas City, go south on U.S. Highway 169 approximately 90 miles to U.S. Highway 54. Go west on U.S. Highway 54 to the site. **MAP ATTACHED:** See Figure 1 with Removal Site Evaluation Report		

II. PROGRAM CONTACTS:

REQUESTED BY: Eddie McGlasson	**DATE OF REQUEST:** 01/30/2006	
AGENCY/OFFICE: U.S. EPA Region 7 Superfund Division		
MAILING ADDRESS: 901 N. 5th Street		
CITY: Kansas City	**STATE:** Kansas	**ZIP:** 66101
TELEPHONE: (913) 551-7756	**FAX:** (913) 551-7948	
EVALUATOR: Rick Claytor		
AGENCY/OFFICE: Tetra Tech EM Inc./Seagull Environmental Technologies, Inc.		
MAILING ADDRESS: 8030 Flint Street		
CITY: Lenexa	**STATE:** Kansas	**ZIP:** 66214
TELEPHONE: (913) 908-4649	**FAX:** (816) 734-9663	

III. REMOVAL SITE EVALUATION CRITERIA [40 CFR 300.410(E)]

IS THERE A RELEASE AS DEFINED BY THE NCP: **YES** ☒ **or NO** ☐

EXPLAIN: Residential soils containing lead at concentrations greater than 400 milligrams per kilogram (mg/kg) were identified at the site, well above background levels.

*(A **RELEASE** is defined as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant), but excludes: workplace exposures; engine exhaust emissions; nuclear releases otherwise regulated; and the normal application of fertilizer. For purposes of the NCP, release also means threat of release.)*

IS THE SOURCE A FACILITY OR VESSEL AS DEFINED BY THE NCP: **YES** ☒ **or NO** ☐

EXPLAIN: The site is considered a facility as defined by the NCP.

*(A **FACILITY** is defined as any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or POTW), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft or any site or area, where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel. A **VESSEL** is defined as any description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel.)*

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

DOES THE RELEASE INVOLVE A HAZARDOUS SUBSTANCE, OR POLLUTANT OR CONTAMINANT AS DEFINED BY THE NCP: YES ☒ or NO ☐

EXPLAIN: Elevated concentrations of lead were identified in residential soils at the site.

*(A **HAZARDOUS SUBSTANCE** means any substance, element, compound, mixture, solution, hazardous waste, toxic pollutant, hazardous air pollutant, or imminently hazardous chemical substance or mixture designated pursuant to the CWA, CERCLA, SDWA, CAA or TSCA. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas. The definition of **POLLUTANT or CONTAMINANT** includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions or physical deformations, in such organisms or their offspring. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas).*

IS THE RELEASE SUBJECT TO THE LIMITATIONS ON RESPONSE: YES ☐ or NO ☒

EXPLAIN: There are no limitations on response.

*(The **LIMITATIONS ON RESPONSE** provisions of the NCP (40 CFR 300.400(B) states that removals shall not be undertaken in response to a release: of a naturally occurring substance in its unaltered or natural form; from products that are a part of the structure of, and result in exposure within, residential buildings or business or community structures; or into public or private drinking water supplies due to deterioration of the system through ordinary use.)*

DOES THE QUANTITY OR CONCENTRATION WARRANT RESPONSE: YES ☒ or NO ☐

EXPLAIN: Approximately 30 properties have been identified where surface soils contain lead above site-specific removal action levels (RAL). For this site, a RAL for lead has been established at 400 mg/kg for schools, daycare centers, and residences where children with elevated blood-lead (EBL) levels reside. An RAL of 800 mg/kg will apply to other residential and commercial properties.

HAS A PRP BEEN IDENTIFIED: YES ☐ or NO ☒

EXPLAIN: Investigation of potentially responsible parties (PRP) is being conducted by EPA.

IV. CONDITIONS TO WARRANT REMOVAL [40 CFR 300.415(B)(2)]:

ACTUAL OR POTENTIAL EXPOSURE TO HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS: YES ☒ or NO ☐

EXPLAIN: Residential soils containing lead at concentrations greater than 400 mg/kg were identified at the site.

ACTUAL OR POTENTIAL CONTAMINATION OF DRINKING WATER SUPPLIES: YES ☐ or NO ☒

EXPLAIN: Drinking water for the site area is provided by a public water supply.

HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN DRUMS, BARRELS,OR BULK STORAGE CONTAINERS: YES ☐ or NO ☒

EXPLAIN: The site does not contain hazardous substances stored in bulk storage containers.

HIGH LEVELS OF HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN NEAR-SURFACE SOILS: YES ☒ or NO ☐

EXPLAIN: Elevated concentrations of lead were detected in surface soil samples collected from the site.

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

CONDITIONS SUSCEPTIBLE TO IMPACT FROM ADVERSE WEATHER CONDITIONS: YES ☒ or NO ☐

EXPLAIN: The presence of elevated concentrations of lead in surface soils could lead to contaminated runoff or migration of lead contamination via windblown dust or leaching to groundwater.

THREAT OF FIRE OR EXPLOSION: YES ☐ or NO ☒

EXPLAIN: No threat of fire or explosion exists at the site.

POTENTIAL FOR OTHER FEDERAL OR STATE RESPONSE MECHANISMS: YES ☒ or NO ☐

EXPLAIN: The Kansas Department of Health and Environment (KDHE) has been involved with potential contamination issues related to this site.

OTHER SITUATIONS OR FACTORS WHICH POSE A THREAT: YES ☐ or NO ☒

EXPLAIN: No other situations or factors exist that could pose a threat.

V. POTENTIAL REMOVAL ACTIONS [40 CFR 300.415(D)]:

(NOTE: The following identifies potential removal actions which may be determined to be appropriate pending further review and study. The proposed actions should be considered preliminary proposals and are subject to change.)

SITE SECURITY: YES ☐ or NO ☒

EXPLAIN: The site is not fenced; however, because the site encompasses a large residential area, it is not practical to secure the entire area of contamination.

STABILIZATION OR REMOVAL OF SURFACE IMPOUNDMENTS: YES ☐ or NO ☒

EXPLAIN: No surface impoundments exist at the site.

CAPPING OF CONTAMINATED SOIL: YES ☒ or NO ☐

EXPLAIN: Because elevated concentrations of lead were identified in surface soil, capping could be warranted in certain areas.

USE OF CHEMICALS TO CONTROL/RETARD SPREAD OF CONTAMINATION: YES ☐ or NO ☒

EXPLAIN: No chemicals would likely be used to control or retard the spread of contamination from site soils as a removal action.

CONTAMINATED SOIL EXCAVATION: YES ☒ or NO ☐

EXPLAIN: Contaminated soils were identified at the site that will likely require excavation.

REMOVAL OF DRUMS, TANKS, OR BULK STORAGE CONTAINERS: YES ☐ or NO ☒

EXPLAIN: No bulk storage containers are present on site.

CONTAINMENT, TREATMENT, OR DISPOSAL OF HAZARDOUS SUBSTANCES, POLLUTANTS,OR CONTAMINANTS: YES ☒ or NO ☐

EXPLAIN: Treatment and/or disposal of excavated soils would be required at this site.

PROVIDE ALTERNATIVE WATER SUPPLIES: YES ☐ or NO ☒

EXPLAIN: Contaminated drinking water was not identified at the site.

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

VI. REMOVAL SITE EVALUATION DETERMINATION AND REMOVAL PRELIMINARY ASSESSMENT FINDINGS AND RECOMMENDATIONS:

	REMOVAL NOT WARRANTED—REMOVAL SITE EVALUATION TERMINATED

(Cite one or more of the criteria from SECTION III. REMOVAL SITE EVALUATION CRITERIA, as the basis for the above determination.)

	NOT A RELEASE			NOT A FACILITY OR VESSEL
	NOT A HAZARDOUS SUBSTANCE OR POLLUTANT OR CONTAMINANT			SUBJECT TO RESPONSE LIMITATIONS
	INSUFFICIENT QUANTITY OR CONCENTRATION			WILLING/CAPABLE PRP IDENTIFIED

COMMENT:

X	REMOVAL RECOMMENDED | EMERGENCY _X_ TIME-CRITICAL ____ NON-TIME-CRITICAL |

(Cite one or more of the conditions or factors from Section IV. CONDITIONS TO WARRANT A REMOVAL ACTION, as a basis for recommend that a removal action be conducted.)

	X	EXPOSURE TO HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTAMINANTS			X	ADVERSE WEATHER IMPACTS
		CONTAMINATED DRINKING WATER		FIRE/EXPLOSION THREAT	X	CONTAMINATED SOIL
		DRUMS, BARRELS OR CONTAINERS		NO OTHER RESPONSE MECHANISM		OTHER FACTORS

(Identify one or more of the removal actions listed in Section V. REMOVAL ACTIONS WHICH MAY BE APPROPRIATE, as examples of the types of response actions which are recommended.)

		SITE SECURITY		DRAINAGE CONTROL		IMPOUNDMENT STABILIZATION
		REMOVAL OF DRUMS, BARRELS, ETC.	X	SOIL CAPPING	X	SOIL EXCAVATION
	X	CONTAIN/TREAT/DISPOSE OF WASTES		CHEMICAL CONTROLS		ALT. DRINKING WATER SUPPLIES

COMMENT: Excavation and off-site disposal of lead-contaminated soils from schools, daycare centers, and residential (and possibly commercial) properties would likely be the primary removal action conducted at this site.

	ADDITIONAL REMOVAL SITE EVALUATION RECOMMENDED

(Cite one or more of the conditions or factors from Section IV. CONDITIONS TO WARRANT A REMOVAL ACTION, as a basis for recommending that additional site evaluation be performed.)

		EXPOSURE TO HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTAMINANTS				ADVERSE WEATHER IMPACTS
		CONTAMINATED DRINKING WATER		FIRE/EXPLOSION THREAT		CONTAMINATED SOIL
		DRUMS, BARRELS OR CONTAINERS		NO OTHER RESPONSE MECHANISM		OTHER FACTORS

(Identify one or more of the removal actions listed in Section V. REMOVAL ACTIONS WHICH MAY BE APPROPRIATE, as examples of the types of response actions which may be appropriate pending the results of further site evaluation.)

		SITE SECURITY		DRAINAGE CONTROL		IMPOUNDMENT STABILIZATION
		REMOVAL OF DRUMS, BARRELS, ETC.		SOIL CAPPING		SOIL EXCAVATION
		CONTAIN/TREAT/DISPOSE OF WASTE		CHEMICAL CONTROLS		ALTERNATIVE DRINKING WATER SUPPLIES

COMMENT:

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

VII. ADDITIONAL INFORMATION OR COMMENTS:

EPA USE ONLY

VIII. CERTIFICATION

SIGNATURE: **DATE:**
POSITION/TITLE:
OFFICE/AGENCY:

SUPERFUND REMOVAL SITE EVALUATION
and
REMOVAL PRELIMINARY ASSESSMENT

(Supplemental Waste Inventory Sheet)

IX. HAZARDOUS SUBSTANCES, POLLUTANTS OR CONTAMINANT INFORMATION:						
MATERIAL DESCRIPTION	CONTAINER INFORMATION					
TRADE NAME/ACTIVE INGREDIENTS	NUMBER of CONTAINERS	SIZE	TYPE	SOLID or LIQUID	% FULL	CONDITION

ATTACHMENT 1

DATA FROM EPA REGION 7 LABORATORY FOR XRF CONFIRMATION SAMPLES

(25 Pages)

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

Date: 06/07/2006

Subject: Transmittal of Sample Analysis Results for ASR #: 3001

Project ID: EMA78Q00

Project Description: United Zinc No. 1 site sampling

From: Dale I. Bates, Director
Regional Laboratory, Environmental Services Division

To: Eddie McGlasson
SUPR/ER&R

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Eddie McGlasson **Org:** SUPR/ER&R **Phone:** 913-551-7756
Project ID: EMA78Q00
Project Desc: United Zinc No. 1 site sampling
Location: Iola **State:** Kansas **Program:** Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00
Purpose: Site Characterization

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FD = Field Duplicate

Units: Specific units in which results are reported.

% = Percent
mg/kg = Milligrams per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
J = The identification of the analyte is acceptable; the reported value is an estimate.
U = The analyte was not detected at or above the reporting limit.

ASR Number: 3001 **Sample Information Summary** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 - __		Solid	EPA #2, Cell 2		04/11/2006	15:15			04/17/2006
2 - __		Solid	EPA #2, Cell 8		04/11/2006	15:50			04/17/2006
2 - FD		Solid	EPA #2, Cell 8/Field Duplicate of sample 2		04/11/2006	15:50			04/17/2006
4 - __		Solid	EPA #3, Cell 7		04/12/2006				04/17/2006
5 - __		Solid	EPA #4, Cell 3		04/12/2006	13:30			04/17/2006
6 - __		Solid	EPA #5, Cell 8		04/12/2006	15:30			04/17/2006
7 - __		Solid	EPA #5, Cell 2		04/12/2006	15:15			04/17/2006
8 - __		Solid	EPA #6, Cell 3		04/13/2006	09:30			04/17/2006
9 - __		Solid	EPA #13, Cell 2		04/13/2006	09:55			04/17/2006
10 - __		Solid	EPA #6, Cell 16		04/13/2006	11:30			04/17/2006
11 - __		Solid	EPA #7, Cell 1		04/13/2006	14:00			04/17/2006
12 - __		Solid	EPA #12, Cell 2		04/13/2006	16:32			04/17/2006
13 - __		Solid	EPA #10, Cell 1		04/14/2006	08:50			04/17/2006
14 - __		Solid	EPA #14, Cell 3		04/14/2006	13:20			04/17/2006
15 - __		Solid	EPA #28, Cell 2		04/18/2006	12:15			04/25/2006
16 - __		Solid	EPA #42, Cell 3		04/19/2006	08:45			04/25/2006
17 - __		Solid	EPA #37, Cell 1		04/19/2006	11:15			04/25/2006
18 - __		Solid	EPA #48, Cell 1		04/19/2006	13:35			04/25/2006
19 - __		Solid	EPA #39, Cell 1		04/19/2006	15:20			04/25/2006
20 - __		Solid	EPA #35, Cell 4		04/20/2006	08:25			04/25/2006
21 - __		Solid	EPA #16, Cell 4		04/20/2006	10:15			04/25/2006
22 - __		Solid	EPA #29, Cell 2		04/20/2006	14:30			04/25/2006
23 - __		Solid	EPA #30, Cell 1		04/20/2006	15:15			04/25/2006
24 - __		Solid	EPA #50, Cell 1		04/21/2006	08:30			04/25/2006
25 - __		Solid	EPA #56, Cell 1		04/21/2006	11:30			04/25/2006
26 - __		Solid	EPA 58, Cell 1		04/24/2006	15:15			05/01/2006
27 - __		Solid	EPA 76, Cell 3		04/25/2006	09:15			05/01/2006
28 - __		Solid	EPA 64, Cell 1		04/25/2006	10:05			05/01/2006
29 - __		Solid	EPA 80, Cell 3		04/25/2006	17:00			05/01/2006
30 - __		Solid	EPA 81, Cell 4		04/26/2006				05/01/2006
31 - __		Solid	EPA 67, Cell 1		04/26/2006	11:18			05/01/2006
32 - __		Solid	EPA 87, Cell 1		04/26/2006	16:21			05/01/2006
33 - __		Solid	EPA 102, Cell 2		04/27/2006	08:33			05/01/2006
34 - __		Solid	EPA 92, Cell 1		04/27/2006	13:30			05/01/2006
35 - __		Solid	EPA 89, Cell 1		04/27/2006	15:45			05/01/2006
36 - __		Solid	EPA 137, Cell 1		05/01/2006	17:15			05/05/2006
37 - __		Solid	EPA 107, Cell 1		05/02/2006	09:45			05/05/2006
38 - __		Solid	EPA 110, Cell 1		05/02/2006	10:10			05/05/2006
39 - __		Solid	EPA 142, Cell 2		05/02/2006	13:59			05/05/2006
40 - __		Solid	EPA 144, Cell 1		05/02/2006	14:50			05/05/2006
41 - __		Solid	EPA 144, Cell 3		05/02/2006	15:00			05/05/2006
42 - __		Solid	EPA 141, Cell 1		05/03/2006	09:05			05/05/2006
43 - __		Solid	EPA 148, Cell 1		05/03/2006	10:31			05/05/2006
44 - __		Solid	EPA 158, Cell 1		05/03/2006	14:18			05/05/2006

ASR Number: 3001 **Sample Information Summary** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
45 - __		Solid	EPA 156, Cell 2		05/03/2006	14:33			05/05/2006
46 - __		Solid	EPA 171, Cell 2		05/04/2006	15:48			05/05/2006
47 - __		Solid	EPA 183, Cell #1		05/08/2006	13:10			05/16/2006
48 - __		Solid	EPA 179, Cell #2		05/08/2006	14:47			05/16/2006
49 - __		Solid	EPA 190, Cell #1		05/09/2006	13:55			05/16/2006
50 - __		Solid	EPA 185, Cell #1		05/10/2006	09:03			05/16/2006
51 - __		Solid	EPA 201, Cell #1		05/10/2006	13:06			05/16/2006
52 - __		Solid	EPA 198, Cell #1		05/10/2006	15:50			05/16/2006
53 - __		Solid	EPA 205, Cell #1		05/11/2006	08:47			05/16/2006
54 - __		Solid	EPA 197, Cell #1		05/11/2006	09:10			05/16/2006
55 - __		Solid	EPA 208, Cell #2		05/11/2006	14:05			05/16/2006
56 - __		Solid	EPA 216, Cell #1		05/15/2006	11:55			05/22/2006
57 - __		Solid	EPA 218, Cell #2		05/15/2006	13:00			05/22/2006
58 - __		Solid	EPA 220, Cell #1		05/15/2006	13:35			05/22/2006
59 - __		Solid	EPA 221, Cell #1		05/15/2006	16:00			05/22/2006
60 - __		Solid	EPA 234, Cell #2		05/16/2006	08:30			05/22/2006
61 - __		Solid	EPA 229, Cell #3		05/16/2006	10:25			05/22/2006
62 - __		Solid	EPA 225, Cell #1		05/16/2006	11:05			05/22/2006
63 - __		Solid	EPA 223, Cell #1		05/16/2006	13:05			05/22/2006
64 - __		Solid	EPA 223, Cell #1		05/16/2006	14:55			05/22/2006
65 - __		Solid	EPA 237, Cell #2		05/16/2006	16:55			05/22/2006
66 - __		Solid	EPA 239, Cell #1		05/17/2006	08:45			05/22/2006
67 - __		Solid	EPA 236, Cell #2		05/17/2006	09:31			05/22/2006
68 - __		Solid	EPA 248, Cell #3		05/17/2006	10:30			05/22/2006
69 - __		Solid	EPA 243, Cell #1		05/17/2006	12:00			05/22/2006
70 - __		Solid	EPA 244, Cell #3		05/17/2006	12:40			05/22/2006
71 - __		Solid	EPA 246, Cell #1		05/17/2006	13:05			05/22/2006
72 - __		Solid	EPA 246, Cell #3		05/17/2006	13:10			05/22/2006
73 - __		Solid	EPA 249, Cell #1		05/18/2006	08:25			05/22/2006
74 - __		Solid	EPA 255, Cell #1		05/18/2006	10:15			05/22/2006
75 - __		Solid	EPA #255, Cell #1		05/18/2006	12:55			05/22/2006

Analysis **Comments About Results For This Analysis**

1 Metals in Solids by ICP

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3122.3B

Samples:							
1-__	2-__	2-FD	4-__	5-__	6-__	7-__
8-__	9-__	10-__	11-__	12-__	13-__	14-__
15-__	16-__	17-__	18-__	19-__	20-__	21-__
22-__	23-__	24-__	25-__	26-__	27-__	28-__
29-__	30-__	31-__	32-__	33-__	34-__	35-__
36-__	37-__	38-__	39-__	40-__	41-__	42-__
43-__	44-__	45-__	46-__	47-__	48-__	49-__
50-__	51-__	52-__	53-__	54-__	55-__	56-__
57-__	58-__	59-__	60-__	61-__	62-__	63-__
64-__	65-__	66-__	67-__	68-__	69-__	70-__
71-__	72-__	73-__	74-__	75-__		

Comments:

Zinc was J-coded in sample 1, 21, 41 and 61. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.

Arsenic was J-coded in sample 21. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be lower than the reported value.

Lead was J-coded in sample 41. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate.

1 Percent Solid

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3142.9D

Samples:							
1-__	2-__	2-FD	4-__	5-__	6-__	7-__
8-__	9-__	10-__	11-__	12-__	13-__	14-__
15-__	16-__	17-__	18-__	19-__	20-__	21-__
22-__	23-__	24-__	25-__	26-__	27-__	28-__
29-__	30-__	31-__	32-__	33-__	34-__	35-__
36-__	37-__	38-__	39-__	40-__	41-__	42-__
43-__	44-__	45-__	46-__	47-__	48-__	49-__
50-__	51-__	52-__	53-__	54-__	55-__	56-__
57-__	58-__	59-__	60-__	61-__	62-__	63-__
64-__	65-__	66-__	67-__	68-__	69-__	70-__
71-__	72-__	73-__	74-__	75-__		

Analysis	Comments About Results For This Analysis

Comments:
(N/A)

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	1-__	2-__	2-FD	4-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	8.75	7.82	5.38	13.4
Barium	mg/kg	117	139	142	177
Cadmium	mg/kg	7.81	4.42	4.09	9.02
Lead	mg/kg	585	596	496	501
Zinc	mg/kg	1340 J	851	841	1550
1 Percent Solid					
Solids, percent	%	67.8	81.4	80.9	88.5

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	8.86	5.47	6.46	4.71
Barium	mg/kg	125	133	161	150
Cadmium	mg/kg	4.38	5.05	5.84	4.40
Lead	mg/kg	263	284	223	210
Zinc	mg/kg	472	836	684	536
1 Percent Solid					
Solids, percent	%	90.0	89.8	93.8	91.3

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	11.0	5.42	7.47	13.5
Barium	mg/kg	139	172	144	184
Cadmium	mg/kg	10.3	6.92	31.5	8.21
Lead	mg/kg	961	228	736	806
Zinc	mg/kg	1740	677	3090	1610
1 Percent Solid					
Solids, percent	%	78.9	84.3	81.2	90.5

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	108	10.6	6.55	11.4
Barium	mg/kg	140	159	334	168
Cadmium	mg/kg	15.7	11.2	6.95	6.58
Lead	mg/kg	869	539	135	420
Zinc	mg/kg	2280	1420	444	900
1 Percent Solid					
Solids, percent	%	84.7	91.0	90.1	87.7

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	7.30	12.1	7.62	7.44
Barium	mg/kg	149	158	174	196
Cadmium	mg/kg	7.08	8.97	6.05	7.21
Lead	mg/kg	434	2290	440	582
Zinc	mg/kg	1130	1690	750	1010
1 Percent Solid					
Solids, percent	%	83.7	79.8	89.7	89.7

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	7.37 J	8.40	10.1	11.7
Barium	mg/kg	257	159	155	168
Cadmium	mg/kg	8.20	10.9	12.2	8.00
Lead	mg/kg	745	571	681	567
Zinc	mg/kg	1160 J	1480	1600	985
1 Percent Solid					
Solids, percent	%	87.3	91.4	93.3	81.6

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	25-__	26-__	27-__	28-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	19.2	21.0	7.46	14.8
Barium	mg/kg	140	162	160	149
Cadmium	mg/kg	9.74	8.26	9.53	8.37
Lead	mg/kg	1040	769	1050	1150
Zinc	mg/kg	1730	1470	1180	2140
1 Percent Solid					
Solids, percent	%	89.1	71.0	68.5	72.3

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	29-__	30-__	31-__	32-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	5.30	7.91	7.85	17.9
Barium	mg/kg	128	99.4	130	152
Cadmium	mg/kg	7.92	8.92	7.01	17.3
Lead	mg/kg	490	246	288	1200
Zinc	mg/kg	1140	852	833	2400
1 Percent Solid					
Solids, percent	%	69.4	75.5	73.4	76.9

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	33-__	34-__	35-__	36-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	10.3	8.01	7.51	5 U
Barium	mg/kg	175	136	142	187
Cadmium	mg/kg	7.52	6.35	9.05	7.68
Lead	mg/kg	704	556	417	284
Zinc	mg/kg	1310	745	1150	1140
1 Percent Solid					
Solids, percent	%	62.9	74.2	76.0	73.9

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	37-__	38-__	39-__	40-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	7.66	5 U	6.70	9.94
Barium	mg/kg	163	129	139	127
Cadmium	mg/kg	7.69	4.68	8.16	9.23
Lead	mg/kg	616	246	209	578
Zinc	mg/kg	1080	762	766	1860
1 Percent Solid					
Solids, percent	%	71.8	69.8	73.6	61.6

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	41-__	42-__	43-__	44-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	14.8	6.09	3.96	6.86
Barium	mg/kg	150	172	198	190
Cadmium	mg/kg	6.74	8.84	5.47	5.65
Lead	mg/kg	798 J	249	106	148
Zinc	mg/kg	1210 J	1020	483	515
1 Percent Solid					
Solids, percent	%	69.8	71.2	70.2	82.5

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	45-__	46-__	47-__	48-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	8.20	5.43	13.2	7.42
Barium	mg/kg	150	172	126	107
Cadmium	mg/kg	11.0	6.12	7.84	6.80
Lead	mg/kg	342	282	530	411
Zinc	mg/kg	1090	588	1290	1120
1 Percent Solid					
Solids, percent	%	75.8	71.8	67.1	65.9

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	49-__	50-__	51-__	52-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	12.0	5.80	8.04	9.28
Barium	mg/kg	112	117	107	129
Cadmium	mg/kg	6.37	5.53	27.7	7.15
Lead	mg/kg	336	397	764	562
Zinc	mg/kg	785	741	2470	1100
1 Percent Solid					
Solids, percent	%	65.9	73.7	64.4	71.8

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	53-__	54-__	55-__	56-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	7.18	7.55	5.22	5.27
Barium	mg/kg	121	114	120	180
Cadmium	mg/kg	6.52	7.68	7.89	6.95
Lead	mg/kg	186	504	258	496
Zinc	mg/kg	578	1080	856	1030
1 Percent Solid					
Solids, percent	%	64.3	69.6	67.2	75.2

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	57-__	58-__	59-__	60-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	7.36	8.48	8.80	16.2
Barium	mg/kg	117	140	118	200
Cadmium	mg/kg	6.35	7.03	7.46	9.85
Lead	mg/kg	494	837	614	872
Zinc	mg/kg	1080	1040	1460	1530
1 Percent Solid					
Solids, percent	%	81.3	80.6	78.3	78.8

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	61-__	62-__	63-__	64-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	6.62	9.00	49.2	6.59
Barium	mg/kg	271	149	131	188
Cadmium	mg/kg	5.81	6.75	14.6	9.71
Lead	mg/kg	362	551	1960	618
Zinc	mg/kg	723 J	1010	2880	1260
1 Percent Solid					
Solids, percent	%	86.5	80.1	79.4	71.3

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	65-__	66-__	67-__	68-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	7.89	5.10	7.10	11.7
Barium	mg/kg	7.35	127	111	137
Cadmium	mg/kg	5.82	6.66	6.86	7.89
Lead	mg/kg	323	386	509	628
Zinc	mg/kg	864	1010	1590	1320
1 Percent Solid					
Solids, percent	%	84.7	76.2	80.7	84.6

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	69-__	70-__	71-__	72-__
1 Metals in Solids by ICP					
Arsenic	mg/kg	8.24	16.5	9.26	21.4
Barium	mg/kg	155	1254	136	151
Cadmium	mg/kg	5.76	8.04	5.32	8.16
Lead	mg/kg	460	554	633	1360
Zinc	mg/kg	935	1240	1020	1690
1 Percent Solid					
Solids, percent	%	85.2	88.2	87.3	88.3

ASR Number: 3001 **RLAB Approved Sample Analysis Results** **06/07/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	73-__	74-__	75-__
1 Metals in Solids by ICP				
Arsenic	mg/kg	7.52	16.8	16.6
Barium	mg/kg	157	158	137
Cadmium	mg/kg	6.52	8.80	6.79
Lead	mg/kg	585	844	464
Zinc	mg/kg	1270	1530	1200
1 Percent Solid				
Solids, percent	%	78.2	77.1	80.3

ATTACHMENT 2

DATA FROM EPA REGION 7 LABORATORY FOR BIOAVAILABILITY SAMPLES

(Six Pages)

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

Date: 06/16/2006

Subject: Transmittal of Sample Analysis Results for ASR #: 3057

Project ID: EMA78Q00

Project Description: United Zinc No. 1 site sampling

From: Dale I. Bates, Director
Regional Laboratory, Environmental Services Division

To: Eddie McGlasson
SUPR/ER&R

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Eddie McGlasson **Org:** SUPR/ER&R **Phone:** 913-551-7756
Project ID: EMA78Q00
Project Desc: United Zinc No. 1 site sampling
Location: Iola **State:** Kansas **Program:** Superfund
Site Name: United Zinc No. 1 - **Site ID:** A78Q **Site OU:** 00
Purpose: Site Characterization

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample

Units: Specific units in which results are reported.

% = Percent

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

ASR Number: 3057 **Sample Information Summary** **06/16/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -	__	Solid	EPA #7, Cell #3 (KS Drive and Highway 54)		06/06/2006	11:10			06/07/2006
2 -	__	Solid	EPA #138A, Cell #3 (1508 East Monroe)		06/06/2006	11:29			06/07/2006
3 -	__	Solid	EPA #21, Cell #2 (206 South 4th)		06/06/2006	11:50			06/07/2006
4 -	__	Solid	EPA #54, Cell #1 (403 South Street)		06/06/2006	12:20			06/07/2006
5 -	__	Solid	EPA #48, Cell #2 (508 South Street)		06/06/2006	12:35			06/07/2006
6 -	__	Solid	EPA #223, Cell #1 (221 South Elm)		06/06/2006	12:00			06/07/2006

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis	Comments About Results For This Analysis

1 Bioaccessible Lead in Soil by ICP

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3122.3B Applied to Samples Digested for "Bioavailable" Results

Samples: 1-__ 2-__ 3-__ 4-__ 5-__ 6-__

Comments:
(N/A)

ASR Number: 3057 **RLAB Approved Sample Analysis Results** **06/16/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 Bioaccessible Lead in Soil by ICP					
Lead, Bioaccessible	%	62.8	70.6	77.2	79.8

ASR Number: 3057 **RLAB Approved Sample Analysis Results** **06/16/2006**

Project ID: EMA78Q00 **Project Desc:** United Zinc No. 1 site sampling

Analysis/ Analyte	Units	5-__	6-__
1 Bioaccessible Lead in Soil by ICP			
Lead, Bioaccessible	%	86.5	70.3

ATTACHMENT 3

DATA FROM UNIVERSITY OF COLORADO LABORATORY FOR BIOAVAILABILITY SAMPLES AND DATA VALIDATION REPORT

(Four Pages)

TABLE 2. Preliminary Summary Of In Vitro Bioassay Results

Sample	ID	Pb in <250u bulk soil mg/kg	mass soil (g)	calc Pb #1	ICP Pb (mg/l)	solution amt (l)	% Relative Pb Bioavailability
UZ-1	EPA 7 C#3	7043	1.00047	7.05	52.48	0.1	74
UZ-2	EPA 138a C#3	2496	1.00052	2.50	18.08	0.1	72
UZ-3	EPA 21 C#2	5113	1.0004	5.12	43.27	0.1	85
UZ-4	EPA 54 C#1	2285	1.00097	2.29	18.05	0.1	79
UZ-5	EPA 48 C#2	861	1.00087	0.86	7.42	0.1	86
UZ-6	EPA 223 C#1	3383	1.00041	3.38	22.54	0.1	67

Tetra Tech EM Inc.
DATA VALIDATION REPORT
LEVEL II

Site:	United Zinc #1 Site
Laboratory:	Laboratory of Environment and Geological Sciences (LEGS) University of Colorado, Boulder
Data Reviewer:	Nancy McDonald, Tetra Tech EM Inc. (Tetra Tech)
Review Date	July 28, 2006
Sample Delivery Group (SDG):	Not Specified
Sample Numbers:	UZ-1 through UZ-6
Matrix / Number of Samples:	6 soils

The data were qualified according to the U.S. Environmental Protection Agency (EPA) Region 7 document entitled "Contract Laboratory Program Data Validation Functional Guidelines for Evaluating Inorganic Analytical Data" (2430.4C, March 1995). In addition, the Tetra Tech document "Review of Data Packages from Subcontracted Laboratories" (February 2002) was used along with other criteria specified in the LEGS Standard Operating Procedure (SOP).

The review was intended to identify problems and quality control (QC) deficiencies that were readily apparent from the summary data package. The following sections discuss any problems or deficiencies that were found, and data qualifications applied because of non-compliant QC. The data review was limited to the available field and laboratory QC information submitted with the project specific data package.

I, Nancy McDonald, certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

Emily Fisher for 8/9/06

Certified by Nancy McDonald, Chemist Date

DATA VALIDATION QUALIFIERS

U — The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J — The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R — The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

DATA ASSESSMENT

The data package included six (6) soil environmental samples. The samples were analyzed for relative lead bioavailability by the LEGS SOP for relative bioavailability leaching procedure and EPA Method 6010B. There were no field blanks, field duplicates, or performance evaluation samples associated with this data package. The following summarizes the data validation that was performed.

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory and processed within established holding times. No data were qualified.

II. Serial Dilution

A five-fold serial dilution analysis was not performed with the samples in this SDG. No data were qualified because of this data gap.

III. Matrix Spike (MS)

A MS analysis was not performed on a sample from this data package. No data were qualified because of this data gap.

IV. Blanks

Low-level concentrations of lead were detected in the blanks. No data were qualified because sample results were greater than 10 times the blank concentrations.

V. Laboratory Control Sample (LCS)

LCS data were not reported with this data package. Therefore, lead results are considered estimated (J) in all samples.

VI. Comments

There are no additional comments on this SDG.

VII. Overall Assessment of Data

Overall data quality is acceptable, with the following qualifications. Lead results are considered estimated (J) in all samples because both LCS and MS results were omitted from the data package. All data are usable for their intended purposes.